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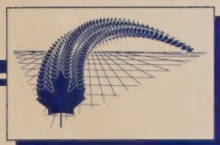
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An Integrated and Competitive Transportation System: Meeting Shipper and Traveller Needs

*A Staff Report to the
National Transportation Act
Review Commission*

March 1992



Canada

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AN INTEGRATED AND COMPETITIVE TRANSPORTATION SYSTEM: MEETING SHIPPER AND TRAVELLER NEEDS

EXECUTIVE SUMMARY

This analysis by staff of the National Transportation Agency (the Agency) highlights major factors defining "shipper and traveller needs" as referred to in paragraph 266(3)(a) of the *National Transportation Act, 1987*. It also highlights responses to those factors by shippers, travellers, carriers and governments and identifies some emerging public policy questions.

Trade, and transportation, are essential to Canada. Exports made up over 25 percent of Gross Domestic Product (GDP) in 1989, one of the highest percentages of OECD countries. Over the past thirty years, Canada's share of world trade has varied between four and five percent: our standard of living, second in the world, depends heavily on exports and requires a transportation system that meets shipper needs.

World trade has doubled in the past seven years and will likely continue this pace of growth. Competition is increasing, however, and more competition is a double-edged sword for Canada. On the one hand, lower tariffs and better market access make it easier to export goods; on the other, they make things easier for foreign competitors.

Open and more competitive world markets make lower transportation and communication costs a key to competing successfully. Canadian shippers need faster delivery and lower costs through better routing and use of modes.

This is especially true of resource shippers. Many Canadian exports, especially in the resource sector, are low in unit value and high in unit weight, a combination which makes transportation costs of critical importance. A 1991 Transport Canada study estimates that, in 1986, total direct and indirect transportation costs accounted to 39 percent of the delivery price of coal, 17 percent for lumber and timber, and 18 percent for industrial chemicals.

To meet these competitive challenges, traditional transportation patterns are changing as Canadian shippers and carriers integrate into a North American transportation network.

A goal of the *NTA, 1987* is to increase carrier competition in meeting the needs of shippers and travellers by opening up transportation markets.

The competitiveness of the Canadian transportation system and its parts can be measured by two standards: 1) how well it can compete on price; and 2) how well it can compete on service.

AN INTEGRATED AND COMPETITIVE TRANSPORTATION SYSTEM: MEETING SHIPPER AND TRAVELLER NEEDS

Shippers have reported that the *NTA, 1987* has increased price competition for transportation in Canada. A previous Agency staff paper highlighted the use of Rail Competitive Access provisions to obtain competitive prices. Available information suggests that, since 1988, truckers have competed fiercely on price. Intermodal services, which must compete with all-rail or all-truck routings, have also been more price-responsive to competition. Air and marine services have also responded to downward rate pressure.

In general, service quality is also reported to have improved with implementation of the *NTA, 1987*. Survey results for rail and trucking show that service has improved from year to year.

However, some shippers have said there is too little competition, especially price competition, in the rail sector. Shippers are also concerned that not enough has been done to join the parts of the Canadian transportation system into a competitive and efficient network for door-to-door service. Among other factors, regulations that differ from province to province, the provision of infrastructure and electronic communications, and a lack of coordination in transportation decisions are seen as competitive constraints.

These constraints raise a number of public policy issues, including jurisdictional overlap, unharmonized regulatory policies, system integration and efficiency, and government-imposed costs.

AN INTEGRATED AND COMPETITIVE TRANSPORTATION SYSTEM: MEETING SHIPPER AND TRAVELLER NEEDS

3

INTRODUCTION

Paragraph 266(3)(a) of *National Transportation Act, 1987 (NTA, 1987)*, prescribes that the review is specifically to consider the Act's effect on achieving a transportation network "responsive to the needs of shippers and travellers". This analysis by staff of the National Transportation Agency (the Agency) identifies shipper and traveller needs in a context of global economic and trade developments. It demonstrates the need for flexible and price-competitive transportation to meet the pressures of international competition and provides information on the extent to which those needs are being met. Emerging public policy questions are also identified.

CANADA IN THE GLOBAL ECONOMY

Canada is a trading nation. The percentage of Gross Domestic Product (GDP) accounted for by exports is one of the highest of any of the OECD countries: 25.2 percent in 1989. Canada's share of world trade has varied between four and five percent over the past thirty years. Our standard of living, ranked second in the world by the OECD, is highly dependent on maintaining a healthy and growing export sector, which in turn, requires a responsive and competitive transportation system.

Trade: a growing market of challenges and opportunities

World trade has doubled in the past seven years and will continue to grow at a substantial rate, but competition is increasing. Technological developments, particularly in transportation and communications, and resulting economies now permit individual companies to compete in a much larger geographic area. Institutional barriers to trade are also being reduced through GATT negotiations and other agreements such as the Canada-U.S. Trade Agreement and the continued integration of the European Community (see Appendices 3.1 and 3.2).

AN INTEGRATED AND COMPETITIVE TRANSPORTATION SYSTEM: MEETING SHIPPER AND TRAVELLER NEEDS

Many of these developments present a double-edged sword to Canada. Lower tariffs and improved market access provide opportunities for Canadian exporters but also for foreign competitors. Historically, a large percentage of Canadian exports comprised unprocessed or semi-processed natural resources such as wood products, coal, and agricultural products. These exporting industries now face new competition from low-cost suppliers in developing countries, countries with lower labour costs and greater proximity to markets.

Canada's domestic market is also increasingly open to and challenged by international competitors, as the Economic Council of Canada, among others, has noted. The growth of automobile imports from outside North America, and the continued dependence on external sources of machinery and industrial equipment reflect this competitive presence in Canada.

Transportation: a source of innovation and a tool for change

The international transportation system has both generated new competition and helped respond to such competition. The development of containers vastly increased the market reach of firms by driving down shipping costs. Recent developments in the handling of containers (ie double-stack trains) were a response to the need to meet competition by accessing markets at lower cost (see Appendix 3.3).

IMPACT ON THE CANADIAN TRANSPORTATION SYSTEM

Canadian producers of goods and services are examining all facets of their operations to lower costs, improve quality and timeliness of production and meet rising customer expectations. For Canadian shippers, this means improving transportation delivery time and cost by using the most effective routing and combination of modes.

Many Canadian exports, especially in the resource sector, are low in unit value and high in unit weight, a combination which makes transportation costs of critical importance. A 1991 Transport Canada study estimates that in 1986 total direct and indirect transportation costs accounted for 39 percent of the delivery price of coal, 17 percent for lumber and timber, and 18 percent for industrial chemicals. These percentages all rose when only export sales were

AN INTEGRATED AND COMPETITIVE TRANSPORTATION SYSTEM: MEETING SHIPPER AND TRAVELLER NEEDS

5

examined (see Appendix 3.4). Transportation costs over the inland portion of routes to U.S. and offshore markets can be of critical importance to sales.

Shippers are demanding integrated transportation services that provide efficient and effective door-to-door distribution. For example, a recent study for Ports Canada on Container Competitiveness stated that, with respect to container movements:

...the cross-border drawing card appears to be the existence of an efficient, time-sensitive and cost-effective transportation mechanism -- in a word, a system.

As noted in the Agency's 1990 Annual Review: "Competition is changing from single-mode transportation firms to integrated transportation systems using different combinations of transportation services to provide better solutions to shippers' needs".

On the passenger side, Canadians are taking advantage of the new competitive array of services for both business and recreational travel. While the business traveller seeks more flexible service and improved quality, the recreational traveller utilises new fare options and routings to obtain lower prices.

Agency data bases indicate, for example, that Air Canada offered 9 different fares on its Toronto-Vancouver route in the 3rd quarter of 1990, including discount fares of up to 65 percent. In the same period, Canadi*n offered 13 different fares on its Montreal-Toronto route with discounts of up to 75 percent and on its Edmonton-Yellowknife route 8 fares with discounts of up to 56 percent. Similar discount fare offerings continue to the present as the airlines compete fiercely for traffic and market share. The aforementioned figures reflect only generally-available discount fares (see Appendix 3.5).

ACCESS

Shippers and travellers are seeking access to new competitive services in a variety of forms: the use of a different mode of transport, the use of a new intermodal routing, and new routings within a mode, often with a different carrier.

AN INTEGRATED AND COMPETITIVE TRANSPORTATION SYSTEM: MEETING SHIPPER AND TRAVELLER NEEDS

North American Integration: redefining the competition

Canadian shippers and carriers appear to be integrating their transportation activities into a North American transportation network.

For many Canadian shippers, access to continental transportation networks is necessary to provide competitive options to traditional Canadian routings. In 1991, for example, the Canadian Wheat Board exported Canadian grain through the Port of Seattle to "develop alternatives to get grain into customers' hands", and to address their concerns about terminal operations in Canada.

Canadian carriers are actively engaged in providing new competitive North American options. CP Rail has fully purchased two U.S. railroads and has now formed one integrated rail service called the CP Rail System. CN has followed suit by creating CN North America.

Canadian trucking firms have established continental operations to serve client needs. They filed almost four times the number of applications for U.S. Interstate Commerce Commission (ICC) operating authorities in 1990 as in 1986.

A major factor influencing this change in North American distribution patterns was the advent of double-stack rail container services from the west coast of the United States. From 1980 to 1989, U.S. west coast container shipments more than doubled, growing by over 130 percent from approximately 3 million Twenty-foot Equivalent Units (TEUs) to about 7 million. In contrast, container shipments through the major U.S. northeastern ports grew by less than 13 percent from 1980 to 1989, rising from 3.6 million TEUs to just over 4 million (see Appendix 3.6).

While double-stack services were initially provided to a shipping line on a dedicated basis, they are now increasingly being marketed on a retail basis by U.S. railroads. These railroads are also aggressively pursuing traditional truck traffic as backhaul domestic container traffic from the central and eastern United States to the west coast.

This integration produces not just new U.S. services, it puts intense pressure on other established systems to respond with new competitive initiatives. As Ron Lawless, President and CEO of CN, described it in a 1991 yearend statement:

AN INTEGRATED AND COMPETITIVE TRANSPORTATION SYSTEM: MEETING SHIPPLER AND TRAVELLER NEEDS

7

"Changing market demands are dictating the future shape of Canada's railways, not nostalgic wishes for the status quo....Canadian railways are part of a very competitive service industry and are being forced to change and restructure to meet the needs of their shipping customers....Canadian railways are also under pressure of another sort, that of increasing competition from lower-cost carriers from the U.S., which now have access into Canada, and from the Canadian trucking industry...To survive pressure for lower costs and these competitive threats, railways need to change, innovate, reduce their costs and become more productive.

A recent Ports Canada study on Container Competitiveness estimated that 190,000 TEUs are moved to/from Canada via U.S. west coast ports in 1989. Montreal continues to receive substantial volumes of traffic to and from U.S. points, reflecting their competitive advantages.

Growing volumes of Canadian sulphur, potash, and methanol have also moved into export markets via U.S. railways and ports in recent years. Industry sources cite both price and service considerations as contributing to these new transportation routings.

In particular, the availability of improved terminal facilities in the U.S. and more flexible labour arrangements appear to be determining factors. Port and terminal charges at Canada's west coast ports can add up to a significant portion of the total landed transportation charges for the movement of goods from production source to an offshore consumer. Estimates range from 10-15 percent of landed transportation charges for methanol to over 30 percent for certain resource based goods.

Shippers have cited lower U.S. rail rates and better service as the driving force behind intermodal routings to U.S. markets. These have included movements of B.C. forest products which are trucked from interior mills directly to the Burlington Northern (BN) at Vancouver. The goods are then moved directly by the BN and connecting U.S. railroads throughout the vast U.S. market.

Forest products are also trucked from interior mills to various reload centres which are situated both in the Vancouver area and in the south central interior on both sides of the Canada\U.S. border. From these reload centres, products can be loaded onto U.S. rail equipment for movement to the U.S. market.

AN INTEGRATED AND COMPETITIVE TRANSPORTATION SYSTEM: MEETING SHIPPER AND TRAVELLER NEEDS

Agreements by highway authorities have in some cases been required to provide competitive options. For instance, the State of Montana and the Province of Alberta agreed in 1991 that Canadian trucks operating over the Canadian border 37 miles into Shelby, Montana, would be exempted from the load weight restrictions normally imposed on truckers in Montana.

In return for this improved access for Canadian shippers to the inland terminal at Shelby, the Province of Alberta continues to allow certain configurations of U.S. trucks on its highways.

New Services

Carriers are also re-organizing their own services to offer better access to markets. CP Rail has stated that it now routes potash traffic from Saskatchewan to the U.S. via North Portal, Saskatchewan rather than Emerson, Manitoba. According to the railway, this provides the advantage of greater efficiency through the more direct routing made possible by CP Rail's full ownership of the Soo Line Railroad.

The new CN Sprint service for containers between Toronto and Montreal is another form of improved access that provides competition for traffic that formerly moved by truck.

Both railways are making large capital investments to their plant and facilities to allow for double-stack container operations. CN is building a new tunnel between Sarnia, Ontario, and Port Huron, Michigan, which will allow CN to provide direct double stack service between Ontario and the U.S. mid-west. CP Rail recently completed an extensive grade reduction project and initiated a major tunnelling project in the Rocky Mountains which will enable it to be more productive and provide increased clearances necessary for double-stack containers.

ROLE OF THE NTA, 1987

A stated goal of the NTA, 1987 is to encourage competition. Particular provisions of the legislation removed market entry and exit controls and price regulation from southern Canadian domestic air services. The legislation also replaced the "public convenience and necessity" licensing test in interprovincial trucking with a less restrictive "reverse-onus" test. Competitive

AN INTEGRATED AND COMPETITIVE TRANSPORTATION SYSTEM: MEETING SHIPPER AND TRAVELLER NEEDS

9

access provisions, including confidential contracting, were introduced to enhance competition in rail markets.

Since 1988, the rail competitive access provisions have let rail shippers get "competitive service" even if they can only use one railway. This has been especially important to resource-based shippers with export markets, who have used access to U.S. railroad rates and services as negotiating tools to bargain for better deals.

These deals with both U.S. and Canadian railways have been used to reach U.S. inland markets and sometimes even off-shore markets through exports by U.S. ports, continuing a trend that preceded the law reforms set out in the *NTA, 1987*.

COMPETITIVENESS OF THE CANADIAN TRANSPORTATION SYSTEM

The competitiveness of the Canadian transportation system and its parts can be measured against two standards: 1) its performance in terms of price, and 2) its performance in terms of service quality. The trend to Just-in-Time inventory systems emphasizes the importance of both standards: reducing over all costs may mean that carrier speed and reliability of service take precedence over service costs alone.

Price Competitiveness

Shippers have reported that the new 1987 laws have increased price competition for transportation in Canada (see Appendix 3.7).

A previous Agency staff paper highlighted the use of Rail Competitive Access provisions to obtain competitive prices (see Appendix 3.8). Shipper and carrier reports suggest that, since 1988, truckers have competed fiercely on price. Intermodal services, which must compete with all-rail or all-truck routings, have also been more price-responsive to competition.

AN INTEGRATED AND COMPETITIVE TRANSPORTATION SYSTEM: MEETING SHIPPER AND TRAVELLER NEEDS

Over-capacity in the ocean shipping sector continues to put downward pressure on rates. A recent staff study of shipping conference tariffs shows that rates for a number of major commodities are currently below 1983 levels, although results do vary between trade routes.

Shippers have, however, expressed some reservations regarding the level of intramodal competition in the domestic rail sector. One out of three respondents to a 1990 Agency survey considered the railways indifferent or not interested in competing with each other in 1990, and one-sixth reported the railways to be less interested than the year before.

For air services, the average yield for major Canadian air carriers had declined more than 16 percent by 1991 from 1984 when relaxed regulatory control began. This compares with a 21 percent reduction in yields experienced by major U.S. airlines in the longer period since 1978 when deregulation of the American airline industry took place.

Service Competitiveness

Annual Review surveys conducted by Agency staff suggest that shippers generally believe the regulatory reforms have led to better service, year over year.

For trucking, nearly 40 percent of responding shippers indicated service improvements in 1990 compared to 1989. Only eight percent indicated a service decline. For rail, comparable figures were 28 percent and 18 percent. Similar results were reported in the previous two surveys.

Shippers have expressed concerns about the level of service provided when traffic is interchanged between federally and provincially regulated railways. This is a particular issue in the B.C. lower mainland and may have implications for shippers using new, provincially incorporated short-line railways devolved from federal carriers.

Shippers and carriers have stated that a number of obstacles to the seamless movement of import/export containers still exist. These include: transshipping time through the port system; the full implementation of EDI in support of the physical cargo; and timeliness of inland routings. The Canadian port system is seen by some shippers as insufficiently responsive to their needs. Consequently, some shippers have resorted to routings through U.S. ports which offer lower costs or faster shipping times. Ports Canada have indicated that initiatives are underway in response to these concerns.

PUBLIC POLICY ISSUES

The service concerns cited previously are examples of what is being called a lack of an integrated approach to transportation. Shippers and carriers alike have stressed the importance of improved "seamless" and intermodal movement with a minimum of regulatory or jurisdictional interference. This raises issues such as the continued differences in regulatory regimes affecting extra-provincial trucking and federal and provincial railways.

A lack of harmony in the regulation of extra-provincial trucking by the provinces is also perceived as a constraint that reduces system efficiency. Requirements for truckers to have operating licenses in each province or territory in particular is viewed as unnecessary duplication.

While the Canadian Council of Motor Transport Administrators (CCMTA) has taken steps to harmonize other elements of trucking regulation (ie hours of work, weights and dimensions, the National Safety Code), shippers and carriers continue to express concern at the pace at which harmonization is being achieved and believe that these matters will need to be addressed in order to permit the development of truly integrated intermodal systems.

Canadian shippers have historically been served by two national railways providing integrated traffic movements throughout the country. As the railways continue to rationalize their systems, providing more service intermodally and devolving parts of their systems to smaller, local carriers, the challenge of improving this integrated service becomes more acute. A number of provisions exist in the federal legislation to assist inter-railway traffic flows. Concern has been expressed that some of these provisions are not available to provincial railways and to shippers served by those railways.

Canadian ports are subject to fierce competition from heavily subsidized or publicly-supported U.S. ones, while international shipping lines are consolidating and rationalizing their ports-of-call. Development of the Canadian port system and the functioning of individual ports in a continental intermodal transportation network has been raised as an issue.

AN INTEGRATED AND COMPETITIVE TRANSPORTATION SYSTEM: MEETING SHIPPER AND TRAVELLER NEEDS

Additional issues include the impact of non-transportation governmental policies on transportation. One such issue is whether government-imposed costs such as taxes and user fees unduly inhibit carrier abilities to manage costs. Another issue is whether differences in tax and cost-recovery regimes between modes in Canada and between Canadian and U.S. transportation systems disadvantage Canadian carriers.

Many of these issues are being dealt with or discussed as part of the normal policy development process. They are raised in this staff report in order to highlight issues connected to the Comprehensive Review and to provide a context for the deliberations of the Review process.

Change in Volume of World Output vs. Exports (Indexed)

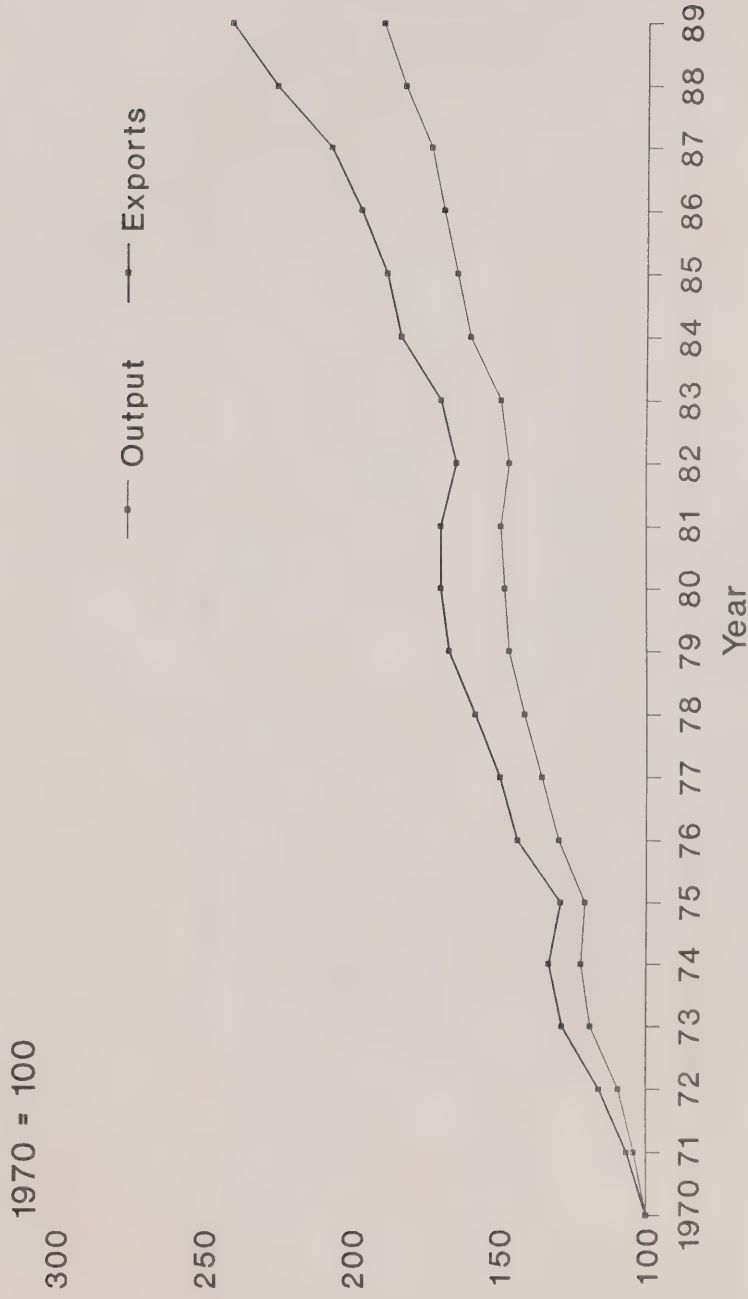
Year (1970=100)	All Goods	
	Output	Exports
1970	100.0	100.0
1971	104.1	106.5
1972	109.4	115.8
1973	118.8	128.4
1974	122.1	132.8
1975	120.8	128.9
1976	129.4	143.4
1977	135.3	149.5
1978	141.3	157.8
1979	146.5	166.7
1980	147.9	169.5
1981	149.3	169.5
1982	146.4	164.4
1983	149.3	169.5
1984	159.7	183.1
1985	164.1	188.1
1986	168.6	196.6
1987	173.0	206.8
1988	181.9	225.4
1989	189.3	240.7

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Source: Economic Council of Canada – based on GATT data

Change in Volume of World Output vs. Exports (Indexed)



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Source: Economic Council of Canada - based on GATT data

World Exports by Region¹ 1971 vs. 1989

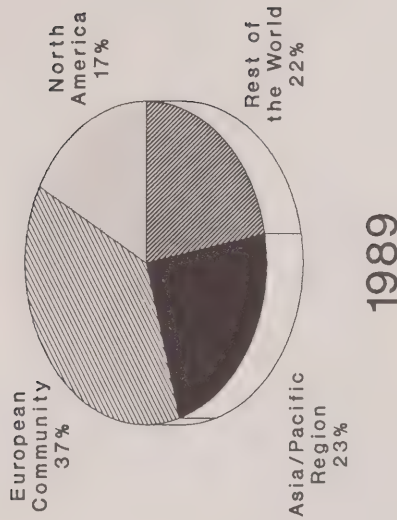
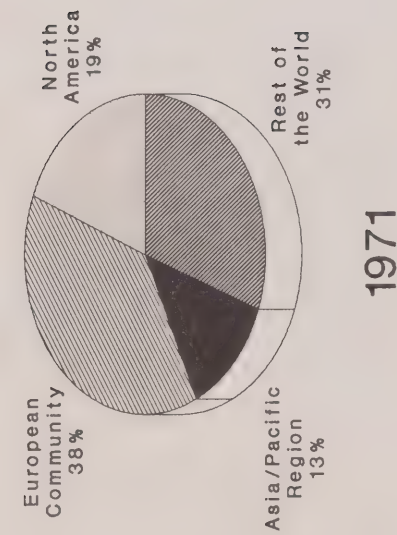
Region	Export Market Share		
	1971	1989	Change %
North America	18.9	17.2	-9.0
European Community ²	38.0	37.3	-1.8
Asia/Pacific Region	12.6	23.4	85.7
Rest of the World	30.5	22.1	-27.5

¹ Includes intra-regional trade.

² Data for 1971 pertains to the twelve EC members in 1989.

World Exports by Region*

1971 vs. 1989



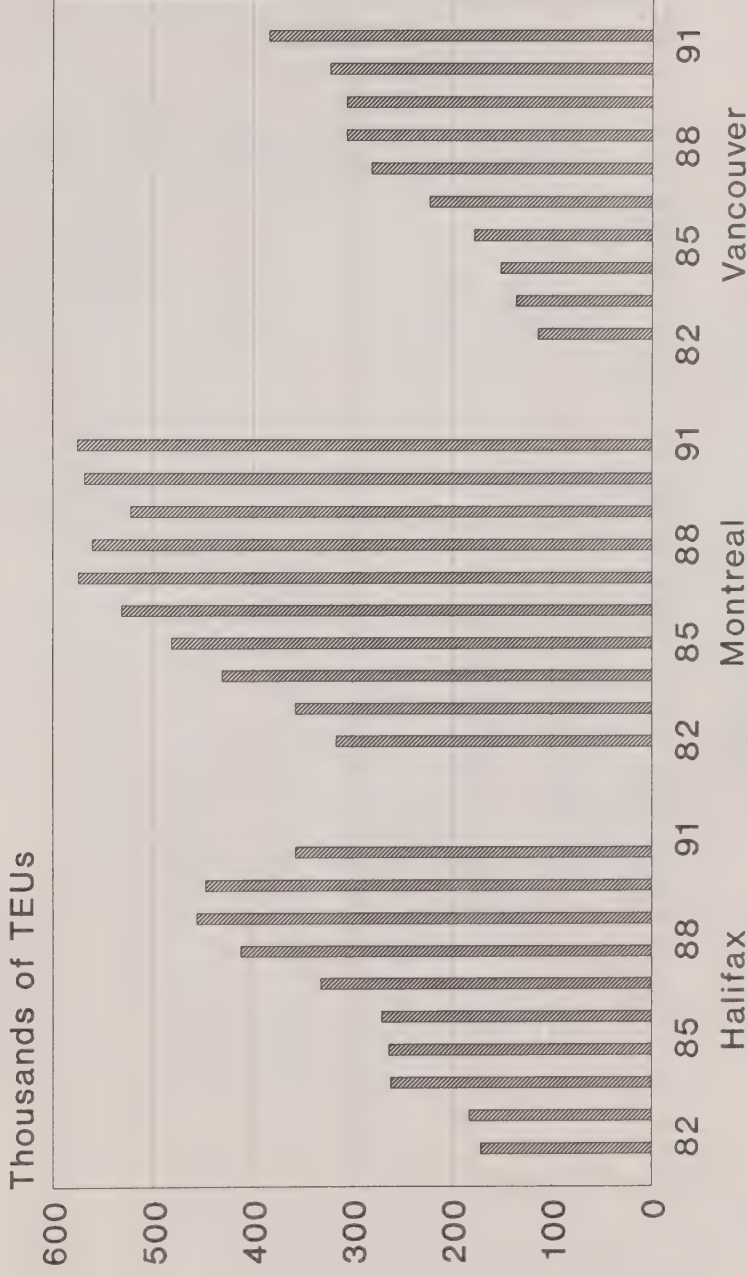
* - Includes intra-regional trade.

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Source: Economic Council of Canada

Containers Handled by 3 Major Canadian Terminals, 1982 to 1991

Year	Twenty-foot Equivalent Units (TEU's)		
	Halifax	Montreal	Vancouver
1982	171,157	316,317	114,010
1983	182,620	357,503	136,178
1984	261,448	430,567	151,551
1985	263,059	481,525	178,175
1986	270,762	531,525	222,781
1987	331,766	574,522	280,777
1988	412,166	560,441	305,738
1989	456,331	522,451	305,688
1990	447,250	568,103	322,569
1991	357,276	575,554	383,563

Containers Handled by 3 Major Canadian Terminals, 1982 to 1991



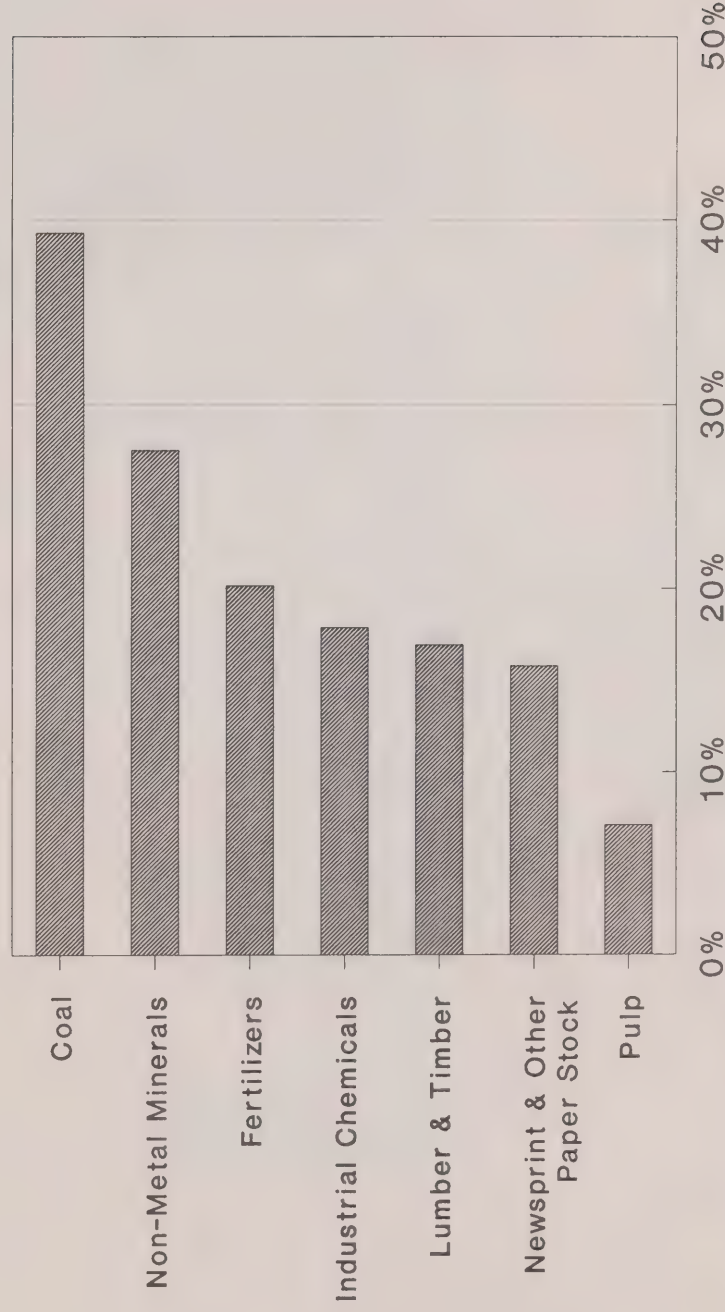
Comprehensive Review Staff Working Group
 National Transportation Agency of Canada
 Source: Canada Ports Corporation, Corporate Services

Transportation Costs as a Proportion of Delivery Price, 1986

Top 15 out of 69* groups	Export Sales %	Domestic Sales %	Total Output %
Coal	44.82	11.83	39.25
Fertilizers	40.59	8.01	20.14
Forestry Products	29.62	11.58	12.18
Non-Metallic Minerals	29.39	25.60	27.52
Grains	27.82	12.24	18.89
Other Agricultural Products	21.08	12.40	13.26
Iron Ores & Concentrates	20.55	19.55	20.28
Industrial Chemicals	20.52	16.67	17.89
Lumber & Timber	17.56	15.45	16.97
Newsprint & Other Paper Stock	17.52	13.13	15.81
Feeds	16.45	7.54	8.26
Paper Products	14.00	8.04	8.58
Cement & Concrete Products	13.85	7.37	7.93
Other Petroleum & Coal Products	13.59	8.19	9.40
Sugar	10.26	3.69	5.40
Selected Others			
Iron & Steel Products	8.30	7.89	7.97
Pulp	7.47	5.35	7.13
Plastic Fabricated Products	6.05	3.23	3.71
Meat Products	4.92	3.79	3.92
Furniture & Fixtures	2.89	2.09	2.24
Motor Vehicles	2.04	1.05	1.93

* - Items selected from 69 commodity groupings in Statistics Canada Input/Output tables. The top 15 were chosen based on the proportion of transportation expense in export delivery prices. Others were selected for comparative illustration.

Transportation Costs for 7 Major Commodities as a Proportion of Price, 1986



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 Source: Transport Canada, based on Statistics Canada I/O models

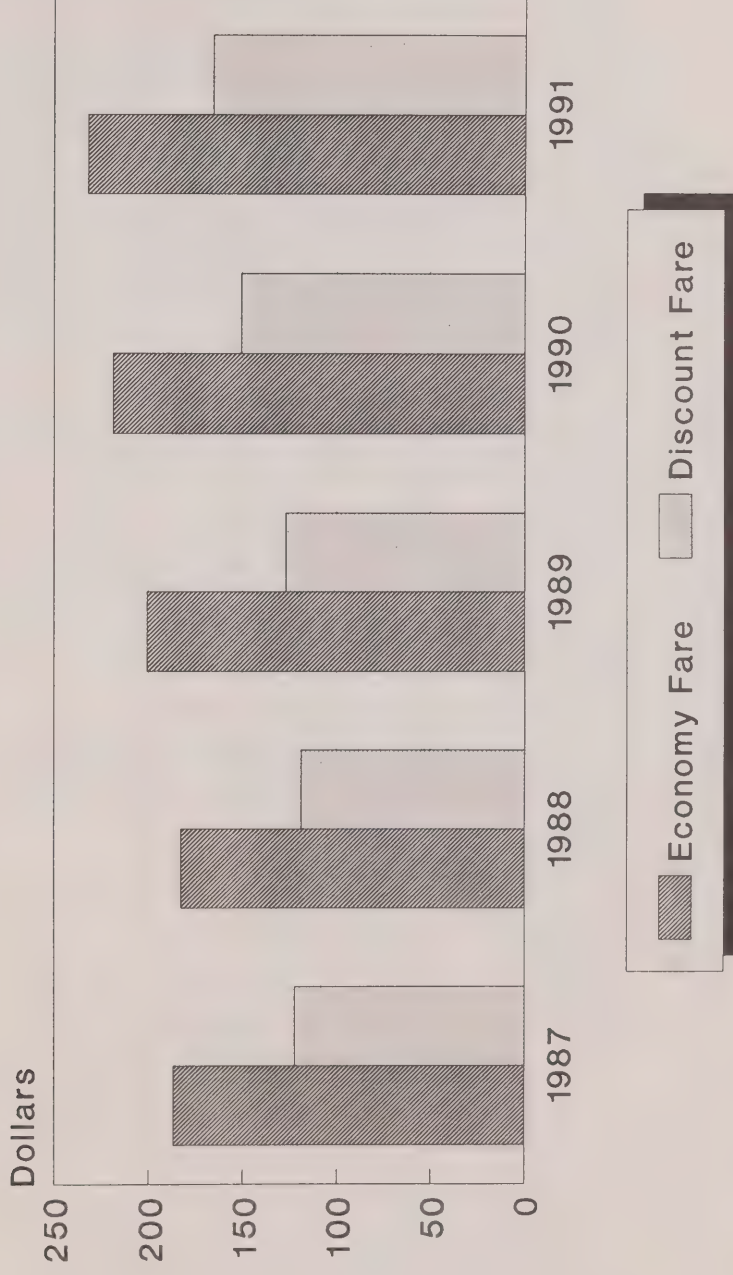
Average Air Fares for 25 Domestic Routes 1987 to 1991

Year	Economy Fare (\$)	Discount Fare (\$)	Discount Percentage
1987	186.69	122.28	-34.5
1988	182.74	118.85	-35.0
1989	200.63	127.05	-36.7
1990	218.65	150.67	-31.1
1991	231.90	165.65	-28.6

Note: Figures are based on 2nd quarter reportings for 25 city-pairs.

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Source: Statistics Canada, Fare Basis Survey

Average Air Fares for 25 Domestic Routes 1987 to 1991



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Source: Statistics Canada, Fare Basis Survey

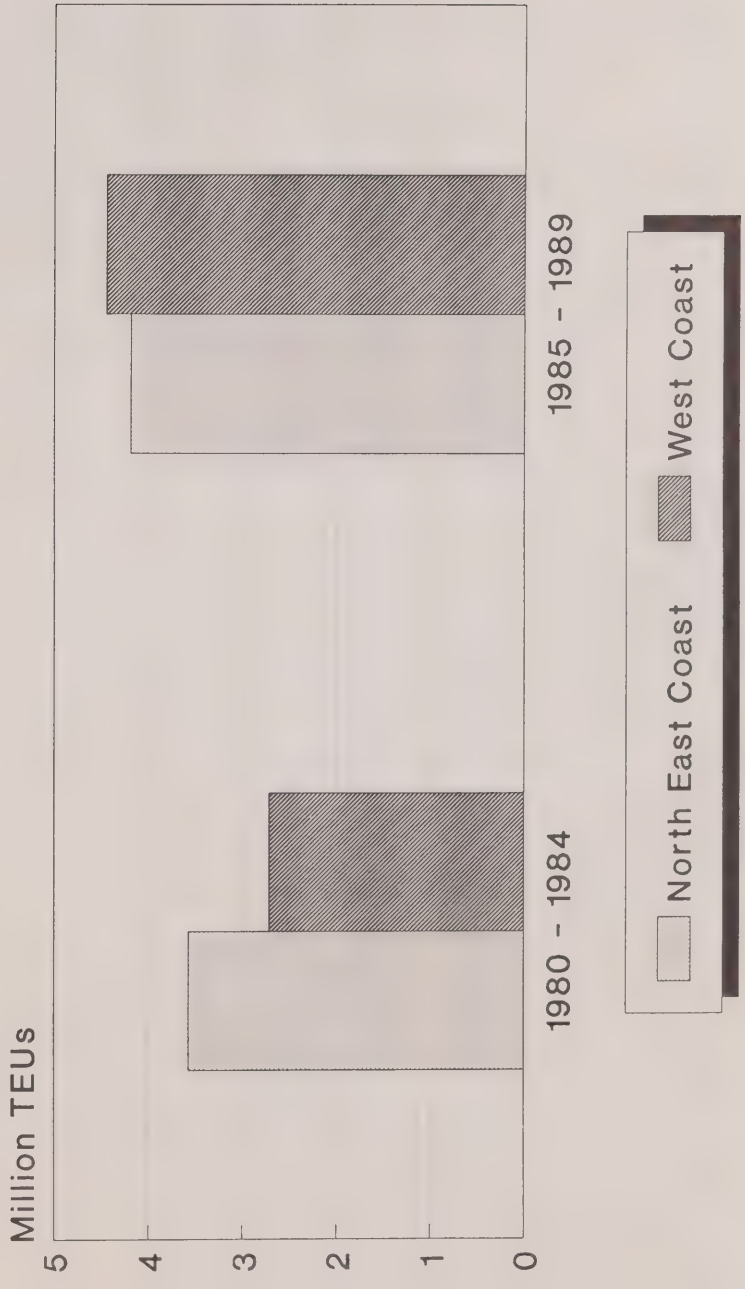
Containers Handled by Major U.S. Ports in TEUs (Twenty-Foot Equivalent Units)

		5-Year Averages		
	Port	1980	1989	Change (%)
		1980	1989	Change (%)
North East Coast	Baltimore MD	663,000	333,809	-49.7
	Boston MA	117,911	140,009	18.7
	Charleston SC	339,634	798,366	135.1
	Hampton Roads VA	356,548	681,148	91.0
	New York/New Jersey	1,947,000	1,988,318	2.1
	Philadelphia PA	129,001	60,543	-53.1
	Total	3,553,094	4,002,193	12.6
West Coast	Long Beach CA	484,943	1,545,243	218.6
	Los Angeles CA	632,784	2,056,628	225.0
	Oakland CA	782,175	1,090,597	39.4
	Portland OR	93,015	186,027	100.0
	San Francisco CA	87,500	113,500	29.7
	Seattle WA	781,563	1,040,890	33.2
	Tacoma WA	106,409	924,974	769.3
	Total	2,968,389	6,957,859	134.4
		1980-84	1985-89	Change (%)
North East Coast	Baltimore MD	647,360	517,347	-20.1
	Boston MA	105,757	309,196	192.4
	Charleston SC	356,903	561,195	57.2
	Hampton Roads VA	314,890	520,091	65.2
	New York/New Jersey	2,007,200	2,176,054	8.4
	Philadelphia PA	137,183	105,490	-23.1
	Total	3,569,292	4,189,373	17.4
West Coast	Long Beach CA	775,795	1,405,183	81.1
	Los Angeles CA	700,436	1,543,325	120.3
	Oakland CA	819,623	973,193	18.7
	Portland OR	97,752	145,324	48.7
	San Francisco CA	88,443	111,274	25.8
	Seattle WA	878,201	957,393	9.0
	Tacoma WA	131,453	714,910	443.9
	Total	2,715,908	4,445,418	63.7

Notes: 1. Ports chosen based on average recent annual TEUs handled $\geq 100,000$.

2. Hampton Roads and Los Angeles are estimates based on tonnage.

Containers Handled by Major U.S. Ports 5-Year Averages



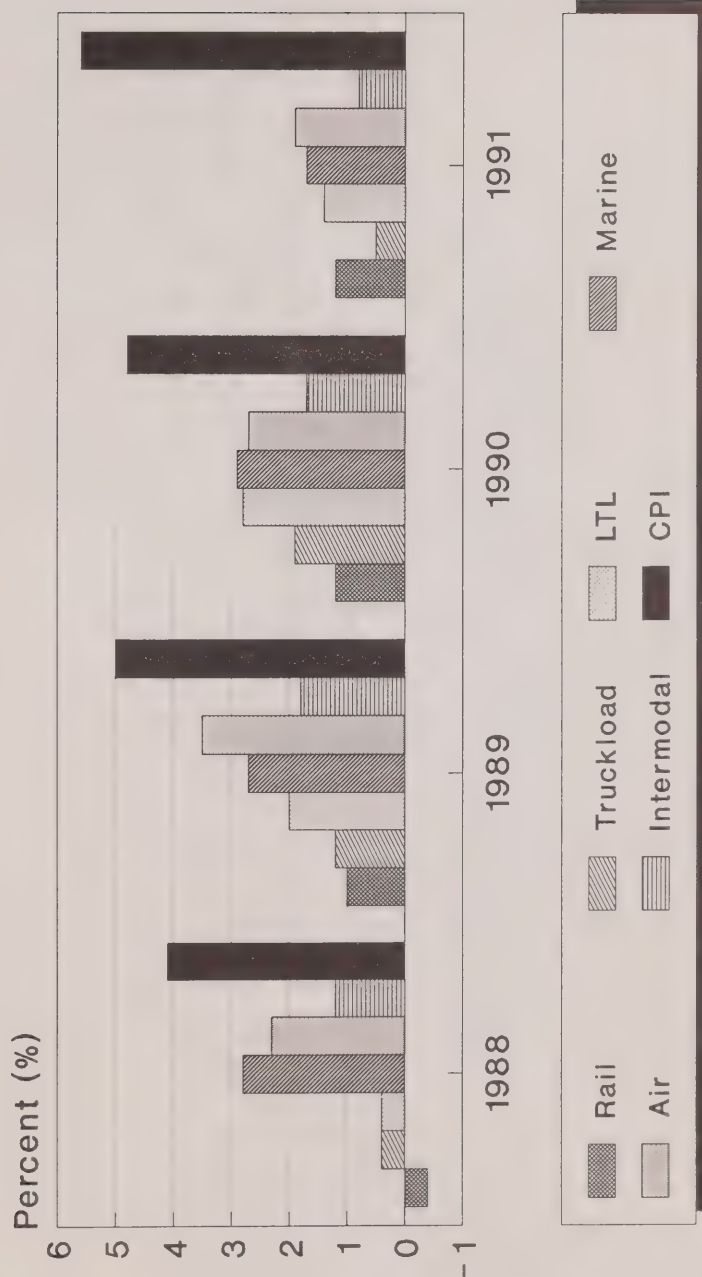
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Source: Containerisation International Yearbook, 1984 - 1991

Shipper Reported Rate Changes by Mode, 1988 to 1991

Mode	Percent (%)			
	1988	1989	1990	1991
Rail	-0.4	1.0	1.2	1.2
TL (Truckload)	0.4	1.2	1.9	0.5
LTL (Less than Truckload)	0.4	2.0	2.8	1.4
Marine	2.8	2.7	2.9	1.7
Air	2.3	3.5	2.7	1.9
Intermodal	1.2	1.8	1.7	0.8
Consumer Price Index	4.1	5.0	4.8	5.6

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National Transportation Agency of Canada
Source: Agency annual review surveys

Shipper Reported Rate Changes by Mode, 1988 to 1991



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National Transportation Agency of Canada
Source: Agency annual review surveys

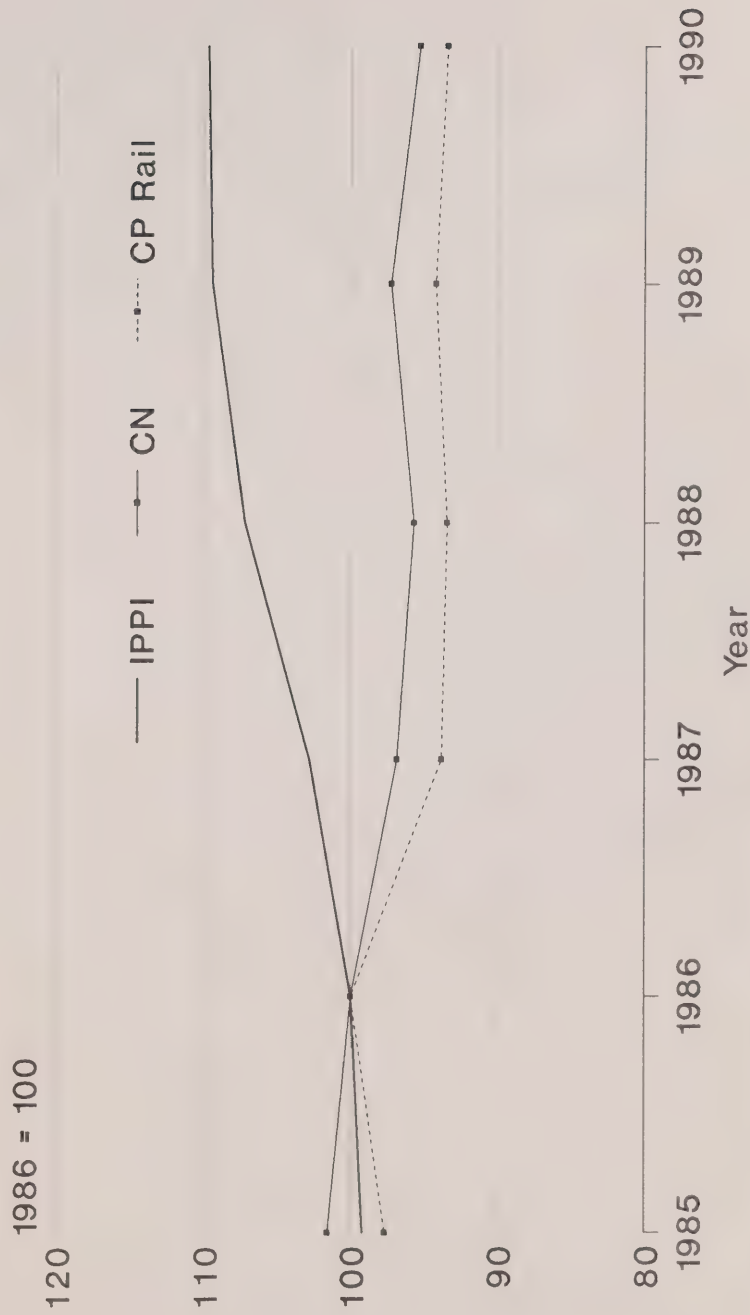
Commodity Prices¹ vs. Rail Rates² 1985 to 1990

Year (1986=100)	Commodity Prices	Rail Rates	
		CN	CP Rail
1985	99.2	101.6	97.7
1986	100.0	100.0	100.0
1987	102.8	96.9	93.8
1988	107.2	95.7	93.4
1989	109.4	97.3	94.2
1990	109.7	95.3	93.4

1 Industrial Product Price Index (IPPI)

2 Index based on Revenues per Tonne-Kilometre

Commodity Prices (IPPI) vs. Indexed Rail Rates, 1985 to 1990



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 Sources: Statistics Canada 62-011 and Agency statistics

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